

REMARKS

Applicants would like to express appreciation to the Examiner for the detailed Official Action provided and for the acknowledgment of Applicants' Information Disclosure Statements (IDS) by return of the Forms PTO-1449. Upon entry of the present paper, claims 1, 8 and 11 will have been amended, and claims 12-13 will have added. Claims 1-13 are pending before the Examiner. Applicants respectfully request reconsideration and withdrawal of the outstanding rejections of the claims pending in the present application. Such action is respectfully requested and is now believed to be appropriate.

In the Official Action, the Examiner rejected claims 1-2, 4-9 and 11 under 35 U.S.C. §103(a) as being unpatentable over MADDOCKS (GB No. 2291314) in view of LARSSON (WO 97/30531). Applicants respectfully traverse the rejection. With respect to independent claims 1 and 8, Applicants respectfully submit that MADDOCKS fails to teach or render obvious at least the claimed attaching a part of a second valid symbol to be transmitted after the first valid symbol is transmitted, the second valid symbol requiring higher channel quality than the first valid symbol, to the second valid symbol as a guard interval. In a non-limiting feature of the present invention, since an error rate of the second valid symbol is usually lower than an error rate of first valid symbol and communication quality of the second valid symbol can be improved, the number of retransmissions can be reduced and, therefore, throughput can be raised.

To the contrary, MADDOCKS merely discloses attaching a guard interval to a reference symbol before the normal data (which has been found by the Examiner to correspond to the claimed first valid symbol) is transmitted (*see, e.g.*, MADDOCKS at Figs.3 and 9 and the accompanying description). Since the reference symbol of MADDOCKS is used to correct, *e.g.*, amplitude of normal data, this reference symbol is transmitted *before* transmitting the normal

data. This reference symbol is a symbol which does not need to be retransmitted unlike the valid symbol, such as user data. Thus, MADDOCKS fails to anticipate or render obvious at least the claimed attaching a part of a second valid symbol to be transmitted after the first valid symbol is transmitted, the second valid symbol requiring higher channel quality than the first valid symbol, to the second valid symbol as a guard interval, as generally claimed in independent claims 1 and 8.

With respect to LARSSON, this reference merely discloses “a portion of a symbol burst is repeated within said symbol burst as a guard space.” Thus, the present invention of at least claims 1 and 8 is neither taught nor rendered obvious by any proper combination of MADDOCKS and LARSSON. To the contrary, it is respectfully submitted that the Examiner has failed to identify the reason why one of ordinary skill in the art would have combined the prior art elements in the manner claimed. It is therefore submitted that the Examiner’s determination of obviousness rests on mere conclusory statements, without any reasoning with some rational underpinning to support the Examiner’s determination of obviousness, and it is respectfully requested that the Examiner’s rejection of claim 1 (and the claims dependent therefrom) and claim 8 be withdrawn.

With respect to the Examiner’s rejection of independent claims 9 and 10 (claim 10 having been rejected under 35 U.S.C. § 103(a) as being unpatentable over MADDOCKS in view of LARSSON and further in view of WECK (U.S. Patent No. 6,115,354)), Applicants respectfully submit that MADDOCKS, LARSSON and/or WECK, alone or together in any proper combination, fail to teach or render obvious at least the claimed providing the guard interval at a greater length when the valid symbol of retransmission information requires higher quality (as recited in claim 9) and/or providing a guard interval of a valid symbol including retransmission

information for control data at a length greater than a guard interval of a valid symbol including user data (as recited in claim 10). Applicants note that the claimed valid symbol of/including retransmission information generally corresponds to the second valid symbol recited in claim 1. Thus, as described, *supra*, the reference symbol is not retransmitted in MADDOCKS (and there is therefore no retransmission information), and MADDOCKS, taken alone or in any proper combination with LARSSON and/or WECK, fails to anticipate or render obvious the invention of claims 9 and 10.

With respect to the Examiner's rejection of independent claim 11, Applicants respectfully submit that MADDOCKS and LARSSON, alone or together in any proper combination, fail to teach or render obvious at least the claimed attacher configured to attach a part of a first valid symbol to the first valid symbol as a guard interval, and further configured to attach a part of a second valid symbol to be transmitted after the first valid symbol is transmitted, the second valid symbol requiring higher channel quality than the first valid symbol as a guard interval, as generally recited in claim 11. As discussed with respect to claim 1, MADDOCKS merely discloses attaching a guard interval to a reference symbol before the normal data is transmitted, and thus fails to teach or render obvious this claim.

Further, with respect to independent claims 1, 9, 10 and 11, as shown in *inter alia* Fig. 3 of MADDOCKS, the longer guard interval of this reference is clearly shown as being transmitted before the normal data is transmitted, and for this additional reason, MADDOCKS, fails to teach or render obvious providing the guard interval at a greater length than that of the other (retransmitted) symbol, as generally recited in these claims.

For at least these reasons, Applicants respectfully submit that the combination of MADDOCKS and LARSSON do not anticipate or render obvious the invention recited in independent claims 1 and 8-11, and respectfully request withdrawal of the 35 U.S.C. §103 rejections.

With respect to the Examiner's rejection of dependent claims 2-7, Applicants submit that since these claims (as well as newly-added claim 12) is dependent from independent claim 1, as well as since newly-added claim 13 is dependent from independent claim 11, these claims being allowable for at least the reasons discussed *supra*, these dependent claims are also allowable for at least these reasons. Further, all dependent claims recite additional features which further define the present invention over the references of record.

Thus, Applicants respectfully submit that each and every pending claim of the present application meets the requirements for Patentability at least under 35 U.S.C. § 103, and respectfully requests the Examiner to indicate the allowance of each and every pending claim in the present application.

SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone, or in any proper combination thereof, discloses or suggests the present invention, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Applicants note that this amendment is being made to advance prosecution of the application to allowance, and should not be considered as surrendering equivalents of the territory between the claims prior to the present amendment and the amended claims. Further, no acquiescence as to the propriety of the Examiner's rejection is made by the present amendment. All other amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,

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